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| EXAMINER | |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/552,915 | KINAKA, MINORU | |
| | Examiner | Art Unit | |
| | TAT CHIO | 2621 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *01 July 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1,2,4 and 6-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4 and 6-8* is/are rejected.

7)☒ Claim(s) *5* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10/13/2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application.
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1, 2, 4, 6-8 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, 4, 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shima (5,673,357) in view of Suzuki et al. (5,140,435), Yatomi (5,909,421), Okuyama (5,940,232), and Kikuchi et al. (US 6,574,422 B1).

**Consider claim 1**, Shima teaches **an information recording and reproducing apparatus including a reproducing part for reproducing a audio signal from an analog recording medium** (col. 12, lines 43-46 teaches the original recording on recording medium is reproduced by reproducing circuit and is outputted as analog audio and video signals to the recording and transmission circuit as shown in Fig. 19), **and a recording part for recording an audio signal onto a digital recording medium** (col. 11, lines 11-17 teaches the circuit shown in Fig. 19 receives input analog composite video signals, which include video information and copy protection information, and input analog audio signals, which include audio information and concurrently processes

the input signals for digital recording onto a first recording medium), comprising:; **a control part for controlling operations of the reproducing part, the recording part, and the control signal detecting part** (microprocessor of Fig. 14 or Fig. 15 and Fig. 19), wherein, **when a dubbing instruction is input, starts a dubbing operation of recording the video and audio signal reproduced by the reproducing part onto the digital recording medium by the recording part** (col. 12, lines 33-35 teaches the circuit shown in FIGS. 19 and 20 are operable to dub and original recording concurrently onto two or more copy media. Col. 12, lines 43-55 teaches "As shown in FIG. 18C, the original recording on recording medium 50 is reproduced by reproducing circuit 51 and is outputted as analog audio and video signals to the recording and transmission circuit 52, which includes the circuit shown in FIG. 19. The recording and transmission circuit 52 generates updated copy protection information that indicates that the video information was copied and records this updated copy protection information along with the reproduced recording onto first copy recording medium 53. The recording and transmission circuit 52 also transmits the original copy protection information with the reproduced recording over the digital transmission line to the recording circuit 54, which includes the circuit shown in FIG. 20." It is well-known that an instruction (either user instruction or machine instruction) is needed to start the dubbing operation). However, Shima does not expressly teach a control signal detecting part for detecting a control signal recorded on the analog recording medium together with the audio signal and the reproduction control signals are recorded at an equal interval in portions where analog video and audio information is recorded, a free space obtaining part for obtaining

a free space of the digital recording medium, the control part instructs the recording part to temporarily stop recording onto the digital recording medium while allowing the reproducing part to continue the reproducing operation, the control part calculates a recording time of a video and audio signal of the analog recording medium based on a control signal detected by the control signal detecting part from the analog recording medium, determines a bit rate during recording of the video and audio signal by the recording part so that all the video and audio signal corresponding to the calculated time is recorded in the free space of the digital recording medium obtained by the free space obtaining part.

Suzuki teaches **a control signal detecting part for detecting a control signal recorded on the analog recording medium together with the audio signal** (col. 8, lines 50-55), **and the reproduction control signals are recorded at an equal interval in portions where analog video and audio information is recorded** (col. 20, lines 38-52 teaches The VTR 1 is a helical-scan type of VTR. In addition to writing a video signal on successive tracks of a magnetic tape, a sound signal is recorded on one track which extends along one edge of the magnetic tape, while control pulses are recorded on a control track which extends along the opposite edge of the tape, as illustrated in FIG. 6 described hereinabove. During recording of a signal, control pulses are recorded along the control track in synchronism with successive vertical scanning intervals of the video signal, with a period which is equal to two successive fields, i.e. equal to the frame period of the video signal. Thus, assuming a field frequency of 60 Hz with 2:1 field interlace, and hence a frame frequency of 30 Hz, the frequency of the control

pulses will of course also be 30 Hz). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a control signal detecting part into the apparatus taught by Shima, because such incorporation, given that the control pulses correspond to respective frames of the video signal, would effectively control the reproduction of the audio and video signals.

The combination of Shima and Suzuki does not explicitly teach a free space obtaining part for obtaining a free space of the digital recording medium, the control part instructs the recording part to temporarily stop recording onto the digital recording medium while allowing the reproducing part to continue the reproducing operation, the control part calculates a recording time of a video and audio signal of the analog recording medium based on a control signal detected by the control signal detecting part from the analog recording medium, determines a bit rate during recording of the video and audio signal by the recording part so that all the video and audio signal corresponding to the calculated time is recorded in the free space of the digital recording medium obtained by the free space obtaining part.

Yatomi teaches **the control part instructs the recording part to temporarily stop recording onto the digital recording medium while allowing the reproducing part to continue the reproducing operation** (col. 9, lines 9-18 teaches If the reproducing position is not the dubbing end position, then the microcomputer 127 determines that the reproducing position on the tape 303 is in the area which need not be reproduced, i.e. the area which need not be dubbed, according to the skip flag in the system data received from the MIC 301 or when a skip flag is detected in the subcode

data in the reproduced data (step S505), and controls the VTR 200 to interrupt the feed of the tape 304 (step S506), then fast feeds the tape 303 in the VTR 100 to a skip end position (step S507)), and **during the dubbing operation, when the control signal detecting part detects a non-recorded region where the control signal is not recorded on the analog recording medium** (col. 9, lines 9-18 teaches If the reproducing position is not the dubbing end position, then the microcomputer 127 determines that the reproducing position on the tape 303 is in the area which need not be reproduced, i.e. the area which need not be dubbed, according to the skip flag in the system data received from the MIC 301 or when a skip flag is detected in the subcode data in the reproduced data (step S505), and controls the VTR 200 to interrupt the feed of the tape 304 (step S506), then fast feeds the tape 303 in the VTR 100 to a skip end position (step S507). See Fig. 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the technique of instructing the recording part to temporarily stop recording onto the digital recording medium while allowing the reproducing part to continue the reproducing operation to improve the device taught by Shima and Suzuki because such incorporation would enable the user to accurately and easily dub only the data in the areas to be dubbed.

The combination of Shima, Suzuki, and Yatomi does not explicitly teach a free space obtaining part for obtaining a free space of the digital recording medium, the control part calculates a recording time of a video and audio signal of the analog recording medium based on a control signal detected by the control signal detecting part from the analog recording medium, determines a bit rate during recording of the

video and audio signal by the recording part so that all the video and audio signal corresponding to the calculated time is recorded in the free space of the digital recording medium obtained by the free space obtaining part.

Okuyama teaches **the control part calculates a recording time of a video and audio signal of the analog recording medium based on a control signal detected by the control signal detecting part from the analog recording medium** (col. 13, lines 21-29 teaches "the cassette management information on the reproducing side is automatically recorded onto the cassette management information recording medium which is provided on the cassette on the recording side upon transmission of the image and audio signals. Accordingly, the microcomputer of the apparatus on the recording side can grasp the information time (reproducing time) of the program which is inputted in dubbing from the cassette management information." The management information is the control signal). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the technique of obtaining a free space of the digital recording medium taught by Kikuchi into the device taught by Shima, Suzuki, and Yatomi because such incorporation would notify the user whether there is enough free space to record the desired program and thus, it is possible to prevent deficiencies such as redoing of dubbing.

The combination of Shima, Suzuki, Yatomi, and Okuyama does not explicitly teach a free space obtaining part for obtaining a free space of the digital recording medium, determines a bit rate during recording of the video and audio signal by the recording part so that all the video and audio signal corresponding to the calculated time

is recorded in the free space of the digital recording medium obtained by the free space obtaining part.

Kikuchi teaches **a free space obtaining part for obtaining a free space of the digital recording medium** (ST 424E of Fig. 42 calculates the remaining amount of free space in the digital recording medium), **determines a bit rate during recording of the video and audio signal by the recording part so that all the video and audio signal corresponding to the calculated time is recorded in the free space of the digital recording medium obtained by the free space obtaining part** (ST422F, ST424F, and ST426F of Fig. 43 determine whether to use bit rate of MPEG 1 or MPEG 2 according to the free space obtained), Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the technique of obtaining a free space of the digital recording medium taught by Kikuchi into the device taught by Shima, Suzuki, Yatomi, and Okuyama because such incorporation would provide the user with the information on the free space of the recording medium.

**Consider claim 2**, Yatomi teaches **the information recording and reproducing apparatus, wherein, during the dubbing operation, when the control signal detecting part detects the control signal again on the analog recording medium after the recording part temporarily stops recording onto the digital recording medium, the control part instructs the recording part to resume recording onto the digital recording medium** (col. 9, lines 9-18 teaches If the reproducing position is not the dubbing end position, then the microcomputer 127 determines that the reproducing position on the tape 303 is in the area which need not

be reproduced, i.e. the area which need not be dubbed, according to the skip flag in the system data received from the MIC 301 or when a skip flag is detected in the subcode data in the reproduced data (step S505), and controls the VTR 200 to interrupt the feed of the tape 304 (step S506), then fast feeds the tape 303 in the VTR 100 to a skip end position (step S507). When the tape 303 is fed to the end position of the area requiring no reproduction, the microcomputer 127 goes back to the step S502 to repeat the same operation. See Fig. 5).

**Consider claims 6**, Kikuchi **teaches the information recording and reproducing apparatus, further comprising a user interface, wherein, in a case where a recordable time when information is recorded at a lowest bit rate in the free space of the digital recording medium is shorter than a recording time of the video and audio signal recorded on the analog recording medium, the control part performs at least one of warning display to the user interface and suspension of the dubbing operation** (ST56 and ST60 of Fig. 49 shows that when the current recording rate is not greater than the minimum recording rate, display a warning to the user).

**Consider claim 4**, Yatomi teaches the information recording and reproducing apparatus, using a tape-shaped medium as the analog recording medium, comprising **a control head for reading a control signal from the tape-shaped medium** (117 of Fig. 1 control head for reading signals in the tap-shaped medium. Col. 9, lines 14-17 teaches when a skip flag is detected in the subcode data in the reproduced data, and controls the VTR to interrupt the feed of the tape, then fast feeds the tape in the VTR to

a skip end position), wherein, when a dubbing instruction is input, **the control part fast-forwards the tape-shaped medium to a trailing edge** (Col. 9, lines 14-17 teaches when a skip flag is detected in the subcode data in the reproduced data, and controls the VTR to interrupt the feed of the tape, then fast feeds the tape in the VTR to a skip end position)**, and thereafter, while the tape-shaped medium is rewound to a leading edge, the control head obtains a control signal recorded on the tape-shaped medium** (col. 9, lines 19-21 teaches "when the tape is fed to the end position of the area requiring no reproduction, the microcomputer goes back to the step S502 to repeat the same operation. See Fig. 5).

**Consider claim 7**, Suzuki teaches **the information recording and reproducing apparatus, wherein the reproduction control signals are configured to be read when the magnetic tape medium is played back, fast-forward or rewond** (col. 8, lines 50-64 teaches these control pulses are also amplified in a preamplifier 9 and detected by a control pulse detection circuit 10, with the resultant output pulses being supplied to the system controller 6 to be counted by an internal counter. In a domestic-use VTR, the control pulses correspond to respective frames of the recorded video signal, i.e. are produced at the frame rate (1/2 of the field frequency) during playback operation, and in synchronism with the vertical blanking intervals. Counting of control pulses by the system controller 6 is initiated when the "rewind" command is issued in step 101c, and is halted when a specific number M of control pulses (designated as CTL pulses in FIG. 2) corresponding to a fixed number of frames, has been counted).

**Consider claim 8**, Yatomi teaches **the information recording and reproducing apparatus, wherein the reproduction signals are not present in the portions of the digital recording medium where the analog video and audio information is not recorded** (Col. 9, lines 14-17 teaches when a skip flag is detected in the subcode data in the reproduced data, and controls the VTR to interrupt the feed of the tape, then fast feeds the tape in the VTR to a skip end position. When the video and audio information is not recorded, then the subcode data is not recorded. The skip flag is also not recorded since it is in the subcode data).

***Allowable Subject Matter***

1. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAT CHIO whose telephone number is (571)272-9563. The examiner can normally be reached on Monday - Thursday 9:00 AM-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter-Anthony Pappas can be reached on 571-272-7646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. C. C./
Examiner, Art Unit 2621

/Peter-Anthony Pappas/
Supervisory Patent Examiner, Art Unit 2621